```
               *        20          *        40         *
ANH0009   : MEVKPPPGRPQPDSGRRRRRRGEEGHDPKEPEQLRKLFIGGLSFETTDDS : 50
XM_087061 : MEVKPPPGRPQPDSGRRRRRRGEEGHDPKEPEQLRKLFIGGLSFETTDDS : 50


               60          *        80          *        100
ANH0009   : LREHFEKWGTLTDCVVMRDPQTKRSRGFGFVTYSCVEEVDAAMCARPHKV : 100
XM_087061 : LREHFEKWGTLTDCVVMRDPQTKRSRGFGFVTYSCVEEVDAAMCARPHKV : 100


               *        120          *        140         *
ANH0009   : DGRVVEPKRAVSREDSVKPGAHLTVKKIFVGGIKEDTEEYNLRDYFEKYG : 150
XM_087061 : DGRVVEPKRAVSREDSVKPGAHLTVKKIFVGGIKEDTEEYNLRDYFEKYG : 150


               160          *        180          *        200
ANH0009   : KIETIEVMEDRQSGKKRGFAFVTFDDHDTVDKIVVQKYHTINGHNCEVKK : 200
XM_087061 : KIETIEVMEDRQSGKKRGFAFVTFDDHDTVDKIVVQKYHTINGHNCEVKK : 200


               *        220          *        240         *
ANH0009   : ALSKQEMQSAGSQRGRGGGSGNFMGRGGNFGGGGGNFGRGGNFGGRGCYG : 250
XM_087061 : ALSKQEMQSAGSQRGRGGGSGNFMGRGGNFGGGGGNFGRGGNFGGRGRIW : 250


               260          *        280          *        300
ANH0009   : GGGGGSRGSYGGGDGGYNGFGGDGGNYGGGPGYSSRGGYGGGGPGYGNQG : 300
XM_087061 : WWRWWQQR----------------------------------------- : 258


               *        320          *        340         *
ANH0009   : GGYGGGGGYDGYNEGGNFGGGNYGGGGNYNDEGNYSCQQQSNYGPMKGGS : 350
XM_087061 : ------------------------------------------------- : -


               360          *
ANH0009   : RGGRSSGSPYGGGYGSGGGSGGYGSRRF : 378
XM_087061 : --------------------------- : -
```

FIG. 1

```
                *         20          *         40          *         6
ANH0024A : MTAPEKPVKQEEMAALDVDSGGGGGGGGGGHGEYLQQQQQHGNGAVAAAAAAQDTQPSPL : 59
ANH0024B : MTAPEKPVKQEEMAALDVDSGGGGGGGGGGHGEYLQQQQQHGNGAVAAAAAAQ------ : 52
ANH0024D : --------------------------LPARGANAPTPPAPPRLARLPPFCARDTQPSPL : 33
ANH0024C : ---------------------------------------------------------- : -
X68560   : ---------------------------------------------------------- : -


           0          *         80          *        100          *        1
ANH0024A : ALLAATCSKIGPPSPGDDEEEAAAAAGAPAAAGATGDLASAQLGGAPNRWEVFSATPTI : 118
ANH0024B : ----------------------------------TGDLASAQLGGAPNRWEVFSATPTI : 77
ANH0024D : ALLAATCSKIGPPSPGDDEEEAAAAAGAPAAAGATGDLASAQLGGAPNRWEVFSATPTI : 92
ANH0024C : ---------------------------------------------------------- : -
X68560   : ---------------------------------------------------------- : -


           20          *        140          *        160          *
ANH0024A : IKDEAGNIVQIPSAATSSGQVVFPIQNIQNQQIFSVAPGSDSSNGAVSSVQYQVIPQIQ : 177
ANH0024B : IKDEAGNIVQIPSAATSSGQVVFPIQNIQNQQIFSVAPGSDSSNGAVSSVQYQVIPQIQ : 136
ANH0024D : IKDEAGNIVQIPSAATSSGQVVFPIQNIQNQQIFSVAPGSDSSNGAVSSVQYQVIPQIQ : 151
ANH0024C : ---------------------------------------------------------- : -
X68560   : ---------------------------------------------------------- : -


           180          *        200          *        220          *
ANH0024A : SADGQQVQIGFTGSSDNGGINQESSQIQIIPGSNQTLLASGTPSANIQNIIPQTGQVQV : 236
ANH0024B : SADGQQVQIGFTGSSDNGGINQESSQIQIIPGSNQTLLASGTPSANIQNIIPQTGQVQV : 195
ANH0024D : SADGQQVQIGFTGSSDNGGINQESSQIQIIPGSNQTLLASGTPSANIQNIIPQTGQVQV : 210
ANH0024C : ---------------------------------------------------------- : -
X68560   : ---------------------------------------------------------- : -


           240          *        260          *        280          *
ANH0024A : QGVAIGGSSFPGQTQVVANVPLGLPGNITFVPINSVDLDSLGLSGSSQTMTAGINADGH : 295
ANH0024B : QGVAIGGSSFPGQTQVVANVPLGLPGNITFVPINSVDLDSLGLSGSSQTMTAGINADGH : 254
ANH0024D : QGVAIGGSSFPGQTQVVANVPLGLPGNITFVPINSVDLDSLGLSGSSQTMTAGINADGH : 269
ANH0024C : ----------------------------------------------------MTAGINADGH : 10
X68560   : ----------------------------------------------------MTAGINADGH : 10


           300          *        320          *        340          *
ANH0024A : LINTGQAMDSSDNSERTGERVSPDINETNTDTDLFVPTSSSQLPVTIDSTGILQQNTN : 354
ANH0024B : LINTGQAMDSSDNSERTGERVSPDINETNTDTDLFVPTSSSQLPVTIDSTGILQQNTN : 313
ANH0024D : LINTGQAMDSSDNSERTGERVSPDINETNTDTDLFVPTSSSQLPVTIDSTGILQQNTN : 328
ANH0024C : LINTGQAMDSSDNSERTGERVSPDINETNTDTDLFVPTSSSQLPVTIDSTGILQQNTN : 69
X68560   : LINTGQAMDSSDNSERTGERVSPDINETNTDTDLFVPTSSSQLPVTIDSTGILQQNTN : 69


           360          *        380          *        400          *
ANH0024A : SLTTSSGQVHSSDLQGNYIQSPVSEETQAQNIQVSTAQPVVQHLQLQESQQPTSQAQIV : 413
ANH0024B : SLTTSSGQVHSSDLQGNYIQSPVSEETQAQNIQVSTAQPVVQHLQLQESQQPTSQAQIV : 372
ANH0024D : SLTTSSGQVHSSDLQGNYIQSPVSEETQAQNIQVSTAQPVVQHLQLQESQQPTSQAQIV : 387
ANH0024C : SLTTSSGQVHSSDLQGNYIQSPVSEETQAQNIQVSTAQPVVQHLQLQESQQPTSQAQIV : 128
X68560   : SLTTSSGQVHSSDLQGNYIQSPVSEETQAQNIQVSTAQPVVQHLQLQESQQPTSQAQIV : 128


           420          *        440          *        460          *
ANH0024A : QGITPQTIHGVQASGQNISQQALQNLQLQLNPGTFLIQAQTVTPSGQVTWQTFQVQGVQ : 472
ANH0024B : QGITPQTIHGVQASGQNISQQALQNLQLQLNPGTFLIQAQTVTPSGQVTWQTFQVQGVQ : 431
ANH0024D : QGITPQTIHGVQASGQNISQQALQNLQLQLNPGTFLIQAQTVTPSGQVTWQTFQVQGVQ : 446
ANH0024C : QGITPQTIHGVQASGQNISQQALQNLQLQLNPGTFLIQAQTVTPSGQVTWQTFQVQGVQ : 187
X68560   : QGITPQTIHGVQASGQNISQQALQNLQLQLNPGTFLIQAQTVTPSGQVTWQTFQVQGVQ : 187
```

FIG. 2A

```
                       480          *         500          *         520          *
ANH0024A : NLQNLQIQNTAAQQITLTPVQTLTLGQVAAGGAFTSTPVSLSTGQLPNLQTVTVNSIDS : 531
ANH0024B : NLQNLQIQNTAAQQITLTPVQTLTLGQVAAGGAFTSTPVSLSTGQLPNLQTVTVNSIDS : 490
ANH0024D : NLQNLQIQNTAAQQITLTPVQTLTLGQVAAGGAFTSTPVSLSTGQLPNLQTVTVNSIDS : 505
ANH0024C : NLQNLQIQNTAAQQITLTPVQTLTLGQVAAGGAFTSTPVSLSTGQLPNLQTVTVNSIDS : 246
X68560   : NLQNLQIQNTAAQQITLTPVQTLTLGQVAAGGAFTSTPVSLSTGQLPNLQTVTVNSIDS : 246


                       540          *         560          *         580          *
ANH0024A : AGIQLHPGENADSPADIRIKEEEPDPEEWQLSGDSTLNTNDLTHLRVQVVDEEGDQQHQ : 590
ANH0024B : AGIQLHPGENADSPADIRIKEEEPDPEEWQLSGDSTLNTNDLTHLRVQVVDEEGDQQHQ : 549
ANH0024D : AGIQLHPGENADSPADIRIKEEEPDPEEWQLSGDSTLNTNDLTHLRVQVVDEEGDQQHQ : 564
ANH0024C : AGIQLHPGENADSPADIRIKEEEPDPEEWQLSGDSTLNTNDLTHLRVQVVDEEGDQQHQ : 305
X68560   : AGIQLHPGENADSPADIRIKEEEPDPEEWQLSGDSTLNTNDLTHLRVQVVDEEGDQQHQ : 305


                       600          *         620          *         640
ANH0024A : EGKRLRRVACTCPNCKEGGGRGTNLGKKKQHICHIPGCGKVYGKTSHLRAHLRWHSGER : 649
ANH0024B : EGKRLRRVACTCPNCKEGGGRGTNLGKKKQHICHIPGCGKVYGKTSHLRAHLRWHSGER : 608
ANH0024D : EGKRLRRVACTCPNCKEGGGRGTNLGKKKQHICHIPGCGKVYGKTSHLRAHLRWHSGER : 623
ANH0024C : EGKRLRRVACTCPNCKEGGGRGTNLGKKKQHICHIPGCGKVYGKTSHLRAHLRWHSGER : 364
X68560   : EGKRLRRVACTCPNCKEGGGRGTNLGKKKQHICHIPGCGKVYGKTSHLRAHLRWHSGER : 364


                  *         660          *         680          *         700
ANH0024A : PFVCNWMYCGKRFTRSDELQRHRRTHTGEKKFVCPECSKRFMRSDHLAKHIKTHQNKKG : 708
ANH0024B : PFVCNWMYCGKRFTRSDELQRHRRTHTGEKKFVCPECSKRFMRSDHLAKHIKTHQNKKG : 667
ANH0024D : PFVCNWMYCGKRFTRSDELQRHRRTHTGEKKFVCPECSKRFMRSDHLAKHIKTHQNKKG : 682
ANH0024C : PFVCNWMYCGKRFTRSDELQRHRRTHTGEKKFVCPECSKRFMRSDHLAKHIKTHQNKKG : 423
X68560   : PFVCNWMYCGKRFTRSDELQRHRRTHTGEKKFVCPECSKRFMRSDHLAKHIKTHQNKKG : 423


                  *         720          *         740          *         760
ANH0024A : IHSSSTVLASVEAARDDTLITAGGTTLILAKIQQGSVSGIGTVNTSATSNQDILTNTEI : 767
ANH0024B : IHSSSTVLASVEAARDDTLITAGGTTLILAKIQQGSVSGIGTVNTSATSNQDILTNTEI : 726
ANH0024D : IHSSSTVLASVEAARDDTLITAGGTTLILAKIQQGSVSGIGTVNTSATSNQDILTNTEI : 741
ANH0024C : IHSSSTVLASVEAARDDTLITAGGTTLILAKIQQGSVSGIGTVNTSATSNQDILTNTEI : 482
X68560   : IHSSSTVLASVEAARDDTLITAGGTTLILAKIQQGSVSGIGTVNTSATSNQDILTNTEI : 482


                  *         780
ANH0024A : PLQLVTVSGNETME : 781
ANH0024B : PLQLVTVSGNETME : 740
ANH0024D : PLQLVTVSGNETME : 755
ANH0024C : PLQLVTVSGNETME : 496
X68560   : PLQLVTVSGNETME : 496
```

FIG. 2B

```
                         *              20         *            40         *             60
ANH0039    : MDLRQFLMCLSLCTAFALSKPTEKKDRVHHEPQLSDKVHNDAQSFDYDHDAFLGAEEAKT : 60
XM_045848  : MDLRQFLMCLSLCTAFALSKPTEKKDRVHHEPQLSDKVHNDAQSFDYDHDAFLGAEEAKT : 60


                         *              80         *           100         *            120
ANH0039    : FDQLTPEESKERLGMIVDKIDADKDGFVTEGELKSWIKHAQKKYIYDNVENQWQEFDMNQ : 120
XM_045848  : FDQLTPEESKERLGKIVSKIDGDKDGFVTVSELKDWIKEAQKRWIYEDVERQWKGHDLNE : 120


                         *             140         *           160         *            180
ANH0039    : DGLISWDEYRNVTYGTYLDDPDPDDGFNYKQMMVRDERRFKMADKDGDLIATKEEFTAFI : 180
XM_045848  : DGLVSWBEYKNATYGYVLDDPDPDDGFNYKQMMVRDERRFKMADKDGDLIATKEEFTAFI : 180


                         *             200         *           220         *            240
ANH0039    : HPEEYDYMKDIVVQETMEDIDKNADGFIDLEEYIGDMYSHDGNTDEPEWVKTEREQFVEF : 240
XM_045848  : HPEEYDYMKDIVVQETMEDIDKNADGFIDLEEYIGDMYSHDGNTDEPEWVKTEREQFVEF : 240


                         *             260         *           280         *            300
ANH0039    : RDKNRDGKMDKEETKDWILPSDYDHAEAEARHLVYESDQNKDGKLTKEEIVDKYDLFVGS : 300
XM_045848  : RDKNRDGKMDKEETKDWILPSDYDHAEAEARHLVYESDQNKDGKLTKEEIVDKYDLFVGS : 300


                         *
ANH0039    : QATDFGEALVRHDEF : 315
XM_045848  : QATDFGEALVRHDEF : 315
```

FIG. 3

```
                    *          20          *          40          *          60
XM_055371 : MRAPSMDRAAVARVGAVASASVCALVAGVVEAQYIETEKRKTGRKTKI-IEMMPEFQKSS :  59
ANH0068   : ------------------------------------------MTNQESAVEVKMMPEFQKSS :  20

                    *          80          *         100          *         120
XM_055371 : VRIKNPTRVEEIICGLIKGGAAKLQIITDFDMTLSRFSYKGKRCPTCHNIIDNCKLVTDE : 119
ANH0068   : VRIKNPTRVEEIICGLIKGGAAKLQIITDFDMTLSRFSYKGKRCPTCHNIIDNCKLVTDE :  80

                    *         140          *         160          *         180
XM_055371 : CRKKLLQLKEKYYAIEVDPVLTVEEKYPYMVEWYTKSHGLLVQQALPKAKLKEIVAESDV : 179
ANH0068   : CRKKLLQLKEKYYAIEVDPVLTVEEKYPYMVEWYTKSHGLLVQQALPKAKLKEIVAESDV : 140

                    *         200          *         220          *         240
XM_055371 : MLKEGYENFFDKLQQHSIPVFIFSAGIGDVLEEVIRQAGVYHPNVKVVSNFMDFDETGVL : 239
ANH0068   : MLKEGYENFFDKLQQHSIPVFIFSAGIGDVLEEVIRQAGVYHPNVKVVSNFMDFDETGVL : 200

                    *         260          *         280          *         300
XM_055371 : KGFKGELIHVFNKHDGALRNTEYFNQLKDNSNIILLGDSQGDLRMADGVANVEHILKIGY : 299
ANH0068   : KGFKGELIHVFNKHDGALRNTEYFNQLKDNSNIILLGDSQGDLRMADGVANVEHILKIGY : 260

                    *         320          *
XM_055371 : LNDRVDELLEKYMDSYDIVLVQDESLEVANSILQKIL- : 336
ANH0068   : LNDRVDELLEKYMDSYDIVLVQDESLEVANSILQKIL- : 297
```

FIG. 4

```
                    *         20         *         40         *         60
ANH0114    : MALGLEQAEEQRLYQQTLLQDGLKDMLDHGKFLDCVVRAGEREFPCHRLVLAACSPYFRA :  60
XM_076374  : MALGLEQAEEQRLYQQTLLQDGLKDMLDHGKFLDCVVRAGEREFPCHRLVLAACSPYFRA :  60


                    *         80         *        100         *        120
ANH0114    : RFLAEPERAGELHLEEVSPDVVAQVLHYLYTSEIALDEASVQDLFAAAHRFQIPSIFTIC : 120
XM_076374  : RFLAEPERAGELHLEEVSPDVVAQVLHYLYTSEIALDEASVQDLFAAAHRFQIPSIFTIC : 120


                    *        140         *        160         *        180
ANH0114    : VSFLQKRLCLSNCLAVFRLGLLLDCARLAVAARDFICAHFTLVARDADFLGLSADELIAI : 180
XM_076374  : VSFLQKRLCLSNCLAVFRLGLLLDCARLAVAARDFICAHFTLVARDADFLGLSADELIAI : 180


                    *        200         *        220         *        240
ANH0114    : ISSDGLNVEKEEAVFEAVMRWAGSGDAEAQAERQRALPTVFESVRCRLLPRAFLESRVER : 240
XM_076374  : ISSDGLNVEKEEAVFEAVMRWAGSGDAEAQAERQRALPTVFESVRCRLLPRAFLESRVER : 240


                    *        260         *        280         *        300
ANH0114    : HPLVRAQPELLRKVQMVKDAHEGRITTLRKKKKGKDGAGAKEADKGTSKAKAEEDEEAER : 300
XM_076374  : HPLVRAQPELLRKVQMVKDAHEGRITTLRKKKKGKDGAGAKEADKGTSKAKAEEDEEAER : 300


                    *        320         *        340         *        360
ANH0114    : ILPGILNDTLRFGMFLQDLIFMISEEGAVAYDPAANECYCASLSSQVPKNHVSLVTKENQ : 360
XM_076374  : ILPGILNDTLRFGMFLQDLIFMISEEGAVAYDPAANECYCASLSNQVPKNHVSLVTKENQ : 360


                    *        380         *        400         *        420
ANH0114    : VFVAGGLFYNEDNKEDPMSAYFLQFDHLDSEWLGMPPLPSPRCLFGLGEALNSIYVVGGR : 420
XM_076374  : VFVAGGLFYNEDNKEDPMSAYFLQFDHLDSEWLGMPPLPSPRCLFGLGEALNSIYVVGGR : 420


                    *        440         *        460         *        480
ANH0114    : EIKDGERCLDSVMCYDRLSFKWGESDELPYVVYGHTVLSHMDLVYVIGGKGSDRKGLNKM : 480
XM_076374  : EIKDGERCLDSVMCYDRLSFKWGHRHRADQFCRSVQHHRQQVGTLRGLPTGA-------- : 472


                    *        500         *        520         *        540
ANH0114    : CVYDPKKFEWKELAPMQTARSLFGATVHDGRLLVAAGVTDGLTSSAEVYSETDNKWAPR : 540
XM_076374  : --------------------------------------------------------- :   -


                    *        560         *        580         *        600
ANH0114    : EATPQERSSLSIVSLVGTRYAIGGEATHLETESGEDVAPTELNDIWRYNEEBKKWEGVTRET : 600
XM_076374  : ---------------------------------------------------------- :   -


                    *        620
ANH0114    : RYAAGTFLPVRLNVLRGTKM : 621
XM_076374  : -------------------- :   -
```

FIG. 5

```
                  *         20         *         40         *         60
ANH0144A : MAEGPRREDEEELRERRELGGQRRAPGRALSGHSAADRNERNKPEHRSSSQGPLSSIRA :  60
ANH0144B : MAEGPRREDEEELRERRELGGQRRARGRALSGHSAADRNERNKPEHRSSSQGPLSSIRA :  60
ANH0144C : MAEGPRREDEEELRERRELGGQRRARGRALSGHSAADRNERNKPEHRSSSQGPLSSIRA :  60
AL133047 : ---------------------------------------------------------- :   -

                  *         80         *        100         *        120
ANH0144A : VIKRSSRTSIQSELHRDRRRPEITIVAAEPLREASWEPGTRPPGLGFPTSSAAGSWRPNE : 120
ANH0144B : VIKRSSRTSIQSELHRDRPRPEITIVAAEPLRPASWEPGTPPPGLGFPTSSAAGSWRPNE : 120
ANH0144C : VIKRSSRTSIQSELHRDRRRPEITIVAAEPLRPASWEPGTRPPGLGFPTSSAAGSWRPNE : 120
AL133047 : ---------------------------------------------------------- :   -

                  *        140         *        160         *        180
ANH0144A : LVPAELPPSYEQVIKEINQVQVNTTNNNNAAATPRHTITSATQTDESEEIDNDLPC---T : 177
ANH0144B : LVPAELPPSYEQVIKEINQVQVNTTNNNNAAATPRHTTTSATQTDESEEIDNDLPC---T : 177
ANH0144C : LVPAELPPSYEQVIKEINQVQVNTTNNNNAAATPRHTLTSATQTDESEEIDNDLPCSNAT : 180
AL133047 : ---------------------------------------------------------- :   -

                  *        200         *        220         *        240
ANH0144A : LQAPLKPLQPFSAVSSGNLPTNVAPLIVFDISEEPNCPENPSATRCPVPRPSKSNLRPI : 237
ANH0144B : LQAPLKPLQPFSAVSSGNLPTNVAPLIVFDISEEPNCPENPSATRCPVPRPSKSNLRPI : 237
ANH0144C : LQAPLKPLQPFSAVSSGNLPTNVAPLIVFDISEEPNCPENPSATRCPVPKPSKSNLRPI : 240
AL133047 : ---------------------------------------------------------- :   -

                  *        260         *        280         *        300
ANH0144A : PRDSHIKEQSQQKLSPAAVGEESSPGRPQSLLDNASTSDSQAVMNIMNTEQSQNSIVSRI : 297
ANH0144B : PRDSHIKEQSQQKLSPAAVGEESSPGRPQSLLDNASTSDSQAVMNIMNTEQSQNSIVSRI : 297
ANH0144C : PRDSHIKEQSQQKLSPAAVGEESSPGRPQSLLDNASTSDSQAVMNIMNTEQSQNSIVSRI : 300
AL133047 : ---------------------------------------------------------- :   -

                  *        320         *        340         *        360
ANH0144A : KVFEGQTNIETSGLPKKPEITERSLPPKPTVSSGKPSVAPKPAANRASGEWDSGTENRLK : 357
ANH0144B : KVFEGQTNIETSGLPKKPEITERSLPPKPTVSSGKPSVAPKPAANRASGEWDSGTENRLK : 357
ANH0144C : KVFEGQTNIETSGLPKKPEITPRSLPPKPTVSSGKPSVAPKPAANRASGEWDSGTENRLK : 360
AL133047 : ---------------------------------------------------------- :   -

                  *        380         *        400         *        420
ANH0144A : VTSKEGLTPYPPLQEAGSIPVTKPELPKKPNEGLIRSVNPEIPGRGPLAESSDSGKKVPT : 417
ANH0144B : VTSKEGLTRYPPLQEAGSIPVTKPELPKKPNEGLIRSVNPEIPGRGPLAESSDSGKKVPT : 417
ANH0144C : VTSKEGLTPYPPLQEAGSIPVTKPELPKKPNPGLIRSVNPEIPGRGPLAESSDSGKKVPT : 420
AL133047 : ---------------------------------------------------------- :   -

                  *        440         *        460         *        480
ANH0144A : PAPRPLLLKKSVSSENPTYPSAPLKPVTVPPRLAGASQAKAYKSLGEGPPANPPVPVLQS : 477
ANH0144B : PAPRPLLLKKSVSSENPTYPSAPLKPVTVPPRLAGASQAKAYKSLGEGPPANPPVPVLQS : 477
ANH0144C : PAPRPLLLKKSVSSENPTYPSAPLKPVTVPPRLAGASQAKAYKSLGEGPPANPPVPVLQS : 480
AL133047 : ---------------------------------------------------------- :   -

                  *        500         *        520         *        540
ANH0144A : KPLVDIDLISFDDDVLPTPSGNLAEESVGSEMVLDPFQLPAKTEPIKERAVQPAPTRKPT : 537
ANH0144B : KPLVDIDLISFDDDVLPTPSGNLAEESVGSEMVLDPFQLPAKTEPIKERAVQPAPTRKPT : 537
ANH0144C : KPLVDIDLISFDDDVLPTPSGNLAEESVGSEMVLDPFQLPAKTEPIKERAVQPAPTRKPT : 540
AL133047 : ---------------------------------------------------------- :   -

                  *        560         *        580         *        600
ANH0144A : VIRIPAKPGKCLHEDPQSPPPLPAEKPIGNTFSTVSGKLSNVERTRNLESNHPGCTGGEV : 597
ANH0144B : VIRIPAKPGKCLHEDPQSPPPLPAEKPIGNTFSTVSGKLSNVERTRNLESNHPGQTGGEV : 597
ANH0144C : VIRIPAKPGKCLHEDPQSPPPLPAEKPIGNTFSTVSGKLSNVERTRNLESNHPGQTGGEV : 600
AL133047 : ---------------------------------------------------------- :   -
```

FIG. 6A

```
                 *         620         *         640         *         660
ANH0144A : RVPPRLPPREVNG--------------------------------------------------- :  610
ANH0144B : RVPPRLPPREVNGHLIMTTILFMSCSARARMGFTGIVHILRFKLLLESWCWSEAGGSVIE :  657
ANH0144C : RVPPRLPPREVNG--------------------------------------------------- :  613
AL133047 : --------------------------------------------------------------- :    -


                 *         680         *         700         *         720
ANH0144A : --------------------------------------------------------------- :    -
ANH0144B : LAEAFARLQIMSSFSSKHGWSFIDWSVRLPVIGWPSQNPLFWMRNGLFCLDMTELYHLET :  717
ANH0144C : --------------------------------------------------------------- :    -
AL133047 : --------------------------------------------------------------- :    -


                 *         740         *         760         *         780
ANH0144A : -KTIPTQQPPTKVPPERPPPPKLSATRRSNKKLPFNRSSSDMDLQKKQSNLATGLSKARS :  669
ANH0144B : KKTIPTQQPPTKVPPERPPPPKLSATRRSNKKLPFNRSSSDMDLQKKQSNLATGLSKARS :  777
ANH0144C : -KTIPTQQPPTKVPPERPPPPKLSATRRSNKKLPFNRSSSDMDLQKKQSNLATGLSKARS :  672
AL133047 : --------------------------------------------------------------- :    -


                 *         800         *         820         *         840
ANH0144A : QVFKNQDPVLPPPEKPGHPLYSKYMLSVPHGIANEDIVSQNPGELSCKRGDVLVMLKQTE :  729
ANH0144B : QVFKNQDPVLPPPEKPGHPLYSKYM-------------------------RGDVLVMLKQTE :  814
ANH0144C : QVFKNQDPVLPPPEKPGHPLYSKYMLSVPHGIANEDIVSQNPGELSCKRGDVLVMLKQTE :  732
AL133047 : -------------------------MLSVPHGIANEDIVSQNPGELSCKRGDVLVMLKQTE :   36


                 *         860         *         880         *         900
ANH0144A : NNYLECQKGEDTGRVHLSQMKIITPLDEHLRSRPNDPSHAQKPVDSGAPHAVVLHDFPAE :  789
ANH0144B : NNYLECQKGEDTGRVHLSQMKIITPLDEHLRSRPNDPSHAQKPVDSGAPHAVVLHDFPAE :  874
ANH0144C : NNYLECQKGEDTGRVHLSQMKIITPLDEHLRSRPNDPSHAQKPVDSGAPHAVVLHDFPAE :  792
AL133047 : NNYLECQKGEDTGRVHLSQMKIITPLDEHLRSRPNDPSHAQKPVDSGAPHAVVLHDFPAE :   96


                 *         920         *         940         *         960
ANH0144A : QVDDLNLTSGEIVYLLEKIDTDWYRGNCRNQIGIFPANYVKVIIDIPEGGNGKRECVSSH :  849
ANH0144B : QVDDLNLTSGEIVYLLEKIDTDWYRGNCRNQIGIFPANYVKVIIDIPEGGNGKRECVSSH :  934
ANH0144C : QVDDLNLTSGEIVYLLEKIDTDWYRGNCRNQIGIFPANYVKVIIDIPEGGNGKRECVSSH :  852
AL133047 : QVDDLNLTSGEIVYLLEKIDTDWYRGNCRNQIGIFPANYVKVIIDIPEGGNGKRECVSSH :  156


                 *         980         *        1000         *        1020
ANH0144A : CVKGSRCVARFEYIGEQKDELSFSEGEIIILKEYVNEEWARGEVRGRTGIFPLNFVEPVE :  909
ANH0144B : CVKGSRCVARFEYIGEQKDELSFSEGEIIILKEYVNEEWARGEVRGRTGIFPLNFVEPVE :  994
ANH0144C : CVKGSRCVARFEYIGEQKDELSFSEGEIIILKEYVNEEWARGEVRGRTGIFPLNFVEPVE :  912
AL133047 : CVKGSRCVARFEYIGEQKDELSFSEGEIIILKEYVNEEWARGEVRGRTGIFPLNFVEPVE :  216


                 *        1040         *        1060         *        1080
ANH0144A : DYPTSGANVLSTKVPLKTKKEDSGSNSQVNSLPAEWCEALHSFTAETSDDLSFKRGDRIQ :  969
ANH0144B : DYPTSGCKCFKHEGTTENQSRRFWLKLSG------------------------------- : 1023
ANH0144C : DYPTSGANVLSTKVPLKTKKEDSGSNSQVNSLPAEWCEALHSFTAETSDDLSFKRGDRIQ :  972
AL133047 : DYPTSGANVLSTKVPLKTKKEDSGSNSQVNSLPAEWCEALHSFTAETSDDLSFKRGDRIQ :  276


                 *        1100         *        1120         *        1140
ANH0144A : ILERLDSDWCRGRLQDREGIFPAVEVRPCPAEAKSMLAIVPKGRKAKALYDFRGENEDEL : 1029
ANH0144B : --------------------------------------------------------------- :    -
ANH0144C : ILERLDSDWCRGRLQDREGIFPAVEVRPCPAEAKSMLAIVPKGRKAKALYDFRGENEDEL : 1032
AL133047 : ILERLDSDWCRGRLQDREGIFPAVFVRPCPAEAKSMLAIVPKGRKAKALYDFRGENEDEL :  336


                 *        1160         *        1180
ANH0144A : SFKAGDIITELESVDDDWMSGELMGKSGIFPKNYIQFLQIS : 1070
ANH0144B : ----------------------------------------- :    -
ANH0144C : SFKAGDIITELESVDDDWMSGELMGKSGIFPKNYIQFLQIS : 1073
AL133047 : SFKAGDIITELESVDDDWMSGELMGKSGIFPKNYIQFLQIS :  377
```

FIG. 6B

```
                    *         20         *         40         *         60
ANH0241    : MDISTRSKDPGSAERTAQKRKFPSPPHSSNGHSPQDTSTSPIKKKKKPGLLNSNNKEQSE : 60
XM_086643  : MDISTRSKDPGSAERTAQKRKFPSPPHSSNGHSPQDTSTSPIKKKKKPGLLNSNNKEQSE : 60

                    *         80         *        100         *        120
ANH0241    : LRHGPFYYMKQPLTTDPVDVVPQDGRNDFYCWVCHREGQVLCCELCPRVYHAKCLRLTSE : 120
XM_086643  : LRHGPFYYMKQPLTTDPVDVVPQDGRNDFYCWVCHREGQVLCCELCPRVYHAKCLRLTSE : 120

                    *        140         *        160         *        180
ANH0241    : PEGDWFCPECEKITVAECIETQSKAMTMLTIEQLSYLLKFAIQKMKQPGTDAFQKPVPLE : 180
XM_086643  : PEGDWFCPECEKITVAECIETQSKAMTMLTIEQLSYLLKFAIQKMKQPGTDAFQKPVPLE : 180

                    *        200         *        220         *        240
ANH0241    : QHPDYAEYIFHPMDLCTLEKNAKKKMYGCTEAFLADAKWILHNCIIYNGGNHKLTQIAKV : 240
XM_086643  : QHPDYAEYIFHPMDLCTLEKNAKKKMYGCTEAFLADAKWILHNCIIYNGGNHKLTQIAKV : 240

                    *        260         *        280         *        300
ANH0241    : VIKICEHEMNEIEVCPECYLAACQKRDNWFCEPCSNPHPLVWAKLKGFPFWPAKALRDKD : 300
XM_086643  : VIKICEHEMNEIEVCPECYLAACQKRDNWFCEPCSNPHPLVWAKLKGFPFWPAKALRDKD : 300

                    *        320         *        340         *        360
ANH0241    : GQVDARFFGQHDRAWVPINNCYLMSKEIPFSVKKTKSIFNSAMQEMEVYVENIRRKFGVF : 360
XM_086643  : GQVDARFFGQHDRAWVPINNCYLMSKEIPFSVKKTKSIFNSAMQEMEVYVENIRRKFGVF : 360

                    *        380         *        400         *        420
ANH0241    : NYSPFRTPYTPNSQYQMLLDPTNPSAGTAKIDKQEKVKLNFDMTASPKILMSKPVLSGGT : 420
XM_086643  : NYSPFRTPYTPNSQYQMLLDPTNPSAGTAKIDKQEKVKLNFDMTASPKILMSKPVLSGGT : 420

                    *        440         *        460         *        480
ANH0241    : GRRISLSDMPRSPMSTNSSVHTGSDVEQDAEKKATSSHFSASEESMDFLDKSTASPASTK : 480
XM_086643  : GRRISLSDMPRSPMSTNSSVHTGSDVEQDAEKKATSSHFSASEESMDFLDKSTASPASTK : 480

                    *        500         *        520         *        540
ANH0241    : TGQAGSLSGSPKPFSPQLSAPITTKTDKTSTTGSILNLNLDRSKAEMDLKELSESVQQQS : 540
XM_086643  : TGQAGSLSGSPKPFSPQLSAPITTKTDKTSTTGSILNLNLDRSKAEMDLKELSESVQQQS : 540

                    *        560         *        580         *        600
ANH0241    : TPVPLISPKRQIRSRFQLNLDKTIESCKAQLGINEISEDVYTAVEHSDSEDSEKSDSSDS : 600
XM_086643  : TPVPLISPKRQIRSRFQLNLDKTIESCKAQLGINEISEDVYTAVEHSDSEDSEKSDSSDS : 600

                    *        620         *        640         *        660
ANH0241    : EYISDDEQKSKNEPEDTEDKEGCQMDKEPSAVKKKPKPTNPVEIKEELKSTSPASEKADP : 660
XM_086643  : EYISDDEQKSKNEPEDTEDKEGCQMDKEPSAVKKKPKPTNPVEIKEELKSTSPASEKADP : 660
```

FIG. 7A

```
                      *        680          *        700          *        720
ANH0241    : GAVKDKASPEPEKDFSEKAKPSPHPIKDKLKGKDETDSPTVHLGLDSDSESELVIDLGED : 720
XM_086643  : GAVKDKASPEPEKDFSEKAKPSPHPIKDKLKGKDETDSPTVHLGLDSDSESELVIDLGED : 720


                      *        740          *        760          *        780
ANH0241    : HSGREGRKNKKEPKEPSPKQDVVGKTPPSTTVGSHSPPETPVLTRSSAQTSAAGATATTS : 780
XM_086643  : HSGREGRKNKKEPKEPSPKQDVVGKTPPSTTVGSHSPPETPVLTRSSAQTSAAGATATTS : 780


                      *        800          *        820          *        840
ANH0241    : TSSTVTVTAPAPAATGSPVKKQRPLLPKETAPAVQRVVWNSSSKFQTSSQKWHMQKMQRC : 840
XM_086643  : TSSTVTVTAPAPAATGSPVKKQRPLLPKETAPAVQRVVWNSSSKFQTSSQKWHMQKMQRC : 840


                      *        860          *        880          *        900
ANH0241    : QQQQQQQNQQQQPQSSQGTRYQTRQAVKAVQQKEITQSPSTSTITLVTSTQSSPLVTSSG : 900
XM_086643  : QQQQQQQNQQQQPQSSQGTRYQTRQAVKAVQQKEITQSPSTSTITLVTSTQSSPLVTSSG : 900


                      *        920          *        940          *        960
ANH0241    : SMSTLVSSVNADLPIATASADVAADIAKYTSKMMDAIKGTYTEIYNDLSKNTGSTFAET : 960
XM_086643  : SMSTLVSSVNADLPIATASADVAADIAKYTSKVNGCNKRNNDRNEQRSE----------- : 949


                      *        980          *        1000         *        1020
ANH0241    : RRIRRIETEKLQWLHQQEISEMKHNILETTMAEMRQSLEQERDRLTAEVKKQLETEKQQAVD : 1020
XM_086643  : ------------------------------------------------------------ : -


                      *        1040         *        1060         *        1080
ANH0241    : ETKKKQWGANCKKEATEYCCWNTSYCDYPCQQAHWPEHMKSCTQSATAPQQEADAEVNTE : 1080
XM_086643  : ------------------------------------------------------------ : -


                      *        1100         *        1120         *        1140
ANH0241    : TLNKSSQCSSSSTQSAPSETASASKEKETSAEKSKESGSTEDLSGSRETPSSTLGSNQG : 1140
XM_086643  : ------------------------------------------------------------ : -


                      *        1160         *        1180         *        1200
ANH0241    : SVSKRGDKQPAVAPTTTDHQPHPNYPAQKYTSRSNKSSWSSSDGKRGSTRSDHNTSTSTK : 1200
XM_086643  : ------------------------------------------------------------ : -


                      *
ANH0241    : SQTPKESRLDTEWD : 1214
XM_086643  : -------------- : -
```

FIG. 7B

```
                   *         20              *         40              *         60
ANH0245   : --------------------MRWKSIAHSVIGYFHDEKWFYEETESSDDVEVLTLKKFK : 39
AK027731  : MDSGCWLFGGEEEDSVFFERRERRSGPPASYCAKLGEPQWFYEETESSDDVEVLTLKKFK : 60


                   *         80              *        100              *        120
ANH0245   : GDLAYRRQEYQKALQEYSSISEKLSSTNFAMKRDVQEGQARCLAHLGRHMEALEIAANLE : 99
AK027731  : GDLAYRRQEYQKALQEYSSISEKLSSTNFAMKRDVQEGQARCLAHLGRHMEALEIAANLE : 120


                   *        140              *        160              *        180
ANH0245   : NKATNTDHLTTVLYLQLAICSSLQNLEKTIFCLQKLISLHPFNPWNWGKLAEAYLNLGPA : 159
AK027731  : NKATNTDHLTTVLYLQLAICSSLQNLEKTIFCLQKLISLHPFNPWNWGKLAEAYLNLGPA : 180


                   *        200              *        220              *        240
ANH0245   : LSAALASSQKQHSFTSSDKTIKSFFPHSGKDCLLCFPETLPESSLFSVEANSSNSQKNEK : 219
AK027731  : LSAALASSQKQHSFTSSDKTIKSFFPHSGKDCLLCFPETLPESSLFSVEANSSNSQKNEK : 240


                   *        260              *        280              *        300
ANH0245   : ALTNIQNCMAEKRETVLIETQLKACASFIRTRLLLQFTQPQQTSFALERNLRTQQEIEDK : 279
AK027731  : ALTNIQNCMAEKRETVLIETQLKACASFIRTRLLLQFTQPQQTSFALERNLRTQQEIEDK : 300


                   *        320              *        340              *        360
ANH0245   : MKGFSFKEDTLLLIAEVMGEDIPEKIKDEVHPEVKCVGSVALTALVTVSSEEFEDKWFRK : 339
AK027731  : MKGFSFKEDTLLLIAEVMGEDIPEKIKDEVHPEVKCVGSVALTALVTVSSEEFEDKWFRK : 360


                   *        380
ANH0245   : IKDHFCPFENQFHTEIQILA : 359
AK027731  : IKDHFCPFENQFHTEIQILA : 380
```

FIG. 8

```
              *        20         *        40         *        60
ANH0296   : MKSRESTIDLRAVLAELNASLLGMRVNNVYDVDNKTYIERLQKPDEKATLLLESGIRIHT :  60
NM_004713 : ------------------------------------------------------------ :   -
AK000913  : MESRESTIDLRAVLAELNASLLGMRVUNVYDVDNKTYLIRLQKPDEKATLLLESGIRIHT :  60

              *        80         *       100         *       120
ANH0296   : TEFEWPKNMMPSSFAMKCRKHLKSFRLVSAKQLGVDRIVDFQFGSDEAAYHLIIELYDRG : 120
NM_004713 : ------------------------------------------------------------ :   -
AK000913  : TEFEWPKNMMPSSFAMKCRKHLKSRRLVSAKQLGVDRIVDEQFGSDEAAYHLIIELYDRG : 120

              *       140         *       160         *       180
ANH0296   : NIVLTDYEYVILNILRERTDEADDVKFAVRERYPLDHARAAEPLLTLERLTEIVASAPKG : 180
NM_004713 : ------------------------------------------------------------ :   -
AK000913  : NIVLTDYEYVILNILRERTDEADDVKFAVRERYPLDHARAAEPLLTLERLTEIVASAPKG : 180

              *       200         *       220         *       240
ANH0296   : ELLKRVLNPLPYGPALIEHCLLENGESGNVKVDEKLETKDIEKVLVSLQKAEDYMKTTS : 240
NM_004713 : ------------------------------------------------------------ :   -
AK000913  : ELLKRVLNPLLPYGPALIEHGLLENGESGNVKVDEKLETKDIEKVLVSLQKAEDYMKTTS : 240

              *       260         *       280         *       300
ANH0296   : NFSGKGYIIQKREIKPCLEADKPVEDILTYEEEHEELFSQHSQCPYIEEESEDKAVDEFY : 300
NM_004713 : ------------------------------------------------------------ :   -
AK000913  : NFSGKGYIIQKREIKPGLEADKPVEDILTYEEEHPEELFSQHSQCPYIEFESEDKAVDEEY : 300

              *       320         *       340         *       360
ANH0296   : SKIEGQKIDIKALQQEKQALKKLDNVRKDHENRLEALQQAQEIDKLKGELIEMNLQIVDR : 360
NM_004713 : ------------------------------------------------------------ :   -
AK000913  : SKIEGQKIDEKALQQEKQALKKLDNVRKDHENRLEALQQAQEIDKLKGELIEMNLQIVDR : 360

              *       380         *       400         *       420
ANH0296   : AIQVVRSALANQIDWTEIGLIVKEAQAQGDPVASAIKELKLQTNHVTMLLRNPYLLSEEE : 420
NM_004713 : ------------------------------------------------------------ :   -
AK000913  : AIQVVRSALANQIDWTEIGLIVKEAQAQGDPVASAIKELKLQTNHVTMLLRNPYLLSEEE : 420

              *       440         *       460         *       480
ANH0296   : DDDVDGDVNVEKNETEPPKGKKKKQKNKQLQKPQKNKPLLVDVDLSLSAYANAKKYYDHK : 480
NM_004713 : ------------------------------------------------------------ :   -
AK000913  : DDDVDGDVNVEKNETEPPKGKKKKQKNKQLQKPQKNKPLLVDVDLSLSAYANAKKYYDHK : 480

              *       500         *       520         *       540
ANH0296   : RYAAKKTQKTVEAAEKAFKSAEKKTKQTLKEVQTVTSIQKARKVYWFEKFLWFISSENYL : 540
NM_004713 : ------------------------------------------------------------ :   -
AK000913  : RYAAKKTQKTVEAAEKAFKSAEKKTKQTLKEVQTVTSI--------------------- : 518

              *       560         *       580         *       600
ANH0296   : IIGGRDQQQNEIIVKRYLTPGDIYVHADLHGATSCVIKNPTGEPIPPRTLTEAGTMALCY : 600
NM_004713 : ------------------------------------------------------------ :   -
AK000913  : ------------------------------------------------------------ :   -
```

FIG. 9A

```
                        *         620         *         640         *         660
ANH0296     : SAAWDARVITSAWWVYHHQVSKTAPTGEYLTTGSFMIRGKKNFLPPSYLMMGFSFLFKVD :  660
NM_004713   : ----------------------------------------------------------- :   -
AK000913    : ----------------------------------------------------------- :   -


                        *         680         *         700         *         720
ANH0296     : ESCVWRHQGERKVRVQDEDMETLASCTSELISEEMEQLDGGDTSSDEDKEEHETPVEVEL :  720
NM_004713   : ----------------------------------------------------------- :   -
AK000913    : ----------------------------------------------------------- :   -


                        *         740         *         760         *         780
ANH0296     : MTQVDQEDITLQSGRDELNEELIQEESSEDEGEYEEVRKDQDSVGEMKDEGEETLNYPDT :  780
NM_004713   : MTQVDQEDITLQSGRDELNEELIQEESSEDEGEYEEVRKDQDSVGEMKDEGEETLNYPDT :   60
AK000913    : ----------------------------------------------------------- :   -


                        *         800         *         820         *         840
ANH0296     : TIDLSHLQPQRSIQKLASKEESSNSSDSKSQSRRHLSAKERREMKKKKLPSDSGDLEALE :  840
NM_004713   : TIDLSHLQPQRSIQKLASKEESSNSSDSKSQSRRHLSAKERREMKKKKLPSDSGDLEALE :  120
AK000913    : ----------------------------------------------------------- :   -


                        *         860         *         880         *         900
ANH0296     : GKDKEKESTVHIETHQNISKNVAAVQPMKRGQKSKMKKMKEKYKDQDEEDRELIMKLLGS :  900
NM_004713   : GKDKEKESTVHIETHQNISKNVAAVQPMKRGQKSKMKKMKEKYKDQDEEDRELIMKLLGS :  180
AK000913    : ----------------------------------------------------------- :   -


                        *         920         *         940         *         960
ANH0296     : AGSNKEEKGKKGKKGKTKDEPVKKQPQKPRGGQRVSDNIKKETPFLEVITHELQDFAVDD :  960
NM_004713   : AGSNKEEKGKKGKKGKTKDEPVKKQPQKPRGGQRVSDNIKKETPFLEVITHELQDFAVDD :  240
AK000913    : ----------------------------------------------------------- :   -


                        *         980         *        1000         *        1020
ANH0296     : PHDDKEEQDLDQQGNEENLEDSLTGQPHPEDVLLFAIPICAPYTTMTNYKYKVKLTPGVC : 1020
NM_004713   : PHDDKEEQDLDQQGNEENLEDSLTGQPHPEDVLLFAIPICAPYTTMTNYKYKVKLTPGVC :  300
AK000913    : ----------------------------------------------------------- :   -


                        *        1040         *        1060         *        1080
ANH0296     : KKGKAAKTALNSFMHSKEATAREKDLFRSVKDTDLSRNIPGKVKSVCTQSSERKKEIAEM : 1080
NM_004713   : KKGKAAKTALNSFMHSKEATAREKDLFRSVKDTDLSRNIPGKVKSVCTQSSERKKEIAEM :  360
AK000913    : ----------------------------------------------------------- :   -


ANH0296     : KF : 1082
NM_004713   : KF :  362
AK000913    : -- :   -
```

FIG. 9B

```
                    *        20         *        40         *        60
ANH0423   : MESGRGSSTPPGPIAALGMPDTGPGSSSLGKLQALPVGPRAHCGDPVSLAAAGDGSPDIG :  60
XM_053487 : MESGRGSSTPPGPIAALGMPDTGPGSSSLGKLQALPVGPRAHCGDPVSLAAAGDGSPDIG :  60

                    *        80         *        100        *        120
ANH0423   : PTGELSGSLKIPNRDSGIDSPSSSVAGENFPCEEGLEAGPSPTVLGAHAEMALDSQVPKV : 120
XM_053487 : PTGELSGSLKIPNRDSGIDSPSSSVAGENFPCEEGLEAGPSPTVLGAHAEMALDSQVPKV : 120

                    *        140        *        160        *        180
ANH0423   : TPQEEADSDVGEEPDSENTPQKADKDAGLAQHSGPQKLLHIAQELLHTEETYVKRLHLLD : 180
XM_053487 : TPQEEADSDVGEEPDSENTPQKADKDAGLAQHSGPQKLLHIAQELLHTEETYVKRLHLLD : 180

                    *        200        *        220        *        240
ANH0423   : QVFCTRLTDAGIPPEVIMGIFSNISSIHRFHGQFLLPELKTRITEEWDTNPRLGDILQKL : 240
XM_053487 : QVFCTRLTDAGIPPEVIMGIFSNISSIHRFHGQFLLPELKTRITEEWDTNPRLGDILQKL : 240

                    *        260        *        280        *        300
ANH0423   : APFLKMYGEYVKNFDRAVGLVSTWTQRSPLFKDVVHSIQKQEVCGNLTLQHHMLEPVQRV : 300
XM_053487 : APFLKMYGEYVKNFDRAVGLVSTWTQRSPLFKDVVHSIQKQEVCGNLTLQHHMLEPVQRV : 300

                    *        320        *        340        *        360
ANH0423   : PRYELLLKDYLKRLPQDAPDRKDAERSLELISTAANHSNAAIRKVEKMHKLLEVYEQLGG : 360
XM_053487 : PRYELLLKDYLKRLPQDAPDRKDAERSLELISTAANHSNAAIRKVEKMHKLLEVYEQLGG : 360

                    *        380        *        400        *        420
ANH0423   : EEDIVNPANELIKEGQIQKLSAKNGTPQDRHLFLFNSMILYCVPKLRLMGQKFSVREKMD : 420
XM_053487 : EEDIVNPANELIKEGQIQKLSAKNGTPQDRHLFLFNSMILYCVPKLRLMGQKFSVREKMD : 420

                    *        440        *        460        *        480
ANH0423   : ISGLQVQDIVKPNTAHTFIITGRKRSLELQTRTEEEKKEWIQIIQATIEKHKQNSETFKA : 480
XM_053487 : ISGLQVQDIVKPNTAHTFIITGRKRSLELQTRTEEEKKEWIQIIQATIEKHKQNSETFKA : 480

                    *        500        *        520        *        540
ANH0423   : FGGAFSQDEDPSLSPDMPITSTSPVEPVVTTEGSSGAAGLEPRKLSSKTRRDKEKQSCKS : 540
XM_053487 : FGGAFSQDEDPSLSPDMPITSTSPVEPVVTTEGSSGAAGLEPRKLSSKTRRDKEKQSCKS : 540

                    *        560        *        580        *        600
ANH0423   : CGETFNSITKRRHHCKLCGAVICGKCSEFKAENSRQSRVCRDCFLTQPVAPESTEKTPTA : 600
XM_053487 : CGETFNSITKRRHHCKLCGAVICGKCSEFKAENSRQSRVCRDCFLTQPVAPESTEVSAPS : 600

                    *        620        *        640        *        660
ANH0423   : DPQESLLCGPHRLSESGETWSEVWAAIPMSDPQVEHLQGGSQDGRLPRTLPLPSGKLSVE : 660
XM_053487 : SQSEPCGAAEPRDTCSCAPAAPMSAEGVSLSPG------------------------- : 634

                    *        680        *        700        *        720
ANH0423   : DPEERLDSGHVWKHQWAKQSWYHSASSAELQGQWLELLSTAAHGDTAQDSPGALQLQVPM : 720
XM_053487 : --------------------------------------------------------- :  -

ANH0423   : GAAAE : 725
XM_053487 : ----- :  -
```

FIG. 10

```
                    *         20        *         40        *         60
ANH0459B  : MDAIKKKMQMLKLDKENALDRAEQAEADKKAAEDRSKQLEEDIAAKEKLIRVSEDERDRV :  60
ANH0459C  : ------------------------------------------MAGSSSLEAVRRKIRSLQEQADAA :  24
ANH0459D  : ------------------------------------------------------------ :   -
NM_000366 : MDAIKKKMQMLKLDKENALDRAEQAEADKKAAEDRSKQLEDELVSLQKKLKGTEDELDKY :  60


                    *         80        *         100       *         120
ANH0459B  : LEEIHKAEDSLLAAEEAAAKAEADVASLNRRIQLVEEELDRAQERLATALQKLEEAEKAA : 120
ANH0459C  : EERAGTLQREIDHERKLRETAEADVASLNRRIQLVEEELDRAQERLATALQKLEEAEKAA :  84
ANH0459D  : ------------------------------------------------------------ :   -
NM_000366 : SEAIKDAQEKLELAEKKATDAEADVASLNRRIQLVEEELDRAQERLATALQKLEEAEKAA : 120


                    *         140       *         160       *         180
ANH0459B  : DESERGMKVIESRAQKDEEKMEIQEIQLKEAKHIAEDADRKYEEVARKLVIIESDLERAE : 180
ANH0459C  : DESERGMKVIESRAQKDEEKMEIQEIQLKEAKHIAEDADRKYEEVARKLVIIESDLERAE : 144
ANH0459D  : ------MKVIESRAQKDEEKMEIQEIQLKEAKHIAEDADRKYEEVARKLVIIESDLERAE :  54
NM_000366 : DESERGMKVIESRAQKDEEKMEIQEIQLKEAKHIAEDADRKYEEVARKLVIIESDLERAE : 180


                    *         200       *         220       *         240
ANH0459B  : ERAELSEGQVRQLEEQLRIMDQTLKALMAAEDKYSQKEDRYEEEIKVLSDKLKEAETRAE : 240
ANH0459C  : ERAELSEGKCAELEEELKTVTNNLKSLEAQAEKYSQKEDRYEEEIKVLSDKLKEAETRAE : 204
ANH0459D  : ERAELSEGQVRQLEEQLRIMDQTLKALMAAEDKYSQKEDRYEEEIKVLSDKLKEAETRAE : 114
NM_000366 : ERAELSEGQVRQLEEQLRIMDQTLKALMAAEDKYSQKEDRYEEEIKVLSDKLKEAETRAE : 240


                    *         260       *         280
ANH0459B  : FAERSVTKLEKSIDDLEEKVAHAKEENLSMHQMLDQTLLELNNM : 284
ANH0459C  : FAERSVTKLEKSIDDLEDQLYQQLEQN---RRLTNELKLALNED : 245
ANH0459D  : FAERSVTKLEKSIDDLEEKVAHAKEENLSMHQMLDQTLLELNNM : 158
NM_000366 : FAERSVTKLEKSIDDLEEKVAHAKEENLSMHQMLDQTLLELNNM : 284
```

FIG. 11

```
                        *          20           *          40           *          60
ANH0769   : MAVLKLTDQPPIVQALESGDPEEIRMLTHKTEDVNTEDSEKRTPLHVAAIEGDAELIELL : 60
AL133087  : ------------------------------------------------------------ : -


                        *          80           *         100           *         120
ANH0769   : TTSGARVNAKDNMWLTPLHRAVASRSEEAVQVLTEKSADVNARDKNWQTPLHVAAANKAV : 120
AL133087  : ------------------------------------------------------------ : -


                        *         140           *         160           *         180
ANH0769   : KQAEVIEDLISSVNVSDRGGRTALHHAALNGHVEMVNFLDAKGANINAEDKKDRRPALHWA : 180
AL133087  : ------------------------------------------------------------ : -


                        *         200           *         220           *         240
ANH0769   : AYHGHEDVVALEINHGAEVTGKDKKGYTPEHAAASNGQLNVVKHLLENTGVEEDEANVYGN : 240
AL133087  : ------------------------------------------------------------ : -


                        *         260           *         280           *         300
ANH0769   : TALHIAGYNGQDAVVNELLDYGANVQPNNNGFTPLHIAAASTHGALCEEDIVNNGADVN : 300
AL133087  : ------------------------------------------------------------ : -


                        *         320           *         340           *         360
ANH0769   : IQSKDGKSPLEMTAVHGRFTRSQTLIQNGGEIDCVDKDGNTPLHVAARYGHELLINTLIT : 360
AL133087  : -----------MTAVHGRFTRSQTLIQNGGEIDCVDKDGNTPLHVAARYGHELLINTLIT : 49


                        *         380           *         400           *         420
ANH0769   : SGADTAKCGIHSMFPLHLAALNAHSDCCRKLLSSGQKYSIVSLFSNEHVLSAGFEIDTPD : 420
AL133087  : SGADTAKCGIHSMFPLHLAALNAHSDCCRKLLSSGQKYSIVSLFSNEHVLSAGFEIDTPD : 109


                        *         440           *         460           *         480
ANH0769   : KFGRTCLHAAAAGGNVECIKLLQSSGADFHKKDKCGRTPLHYAAANCHFHCIETLVTTGA : 480
AL133087  : KFGRTCLHAAAAGGNVECIKLLQSSGADFHKKDKCGRTPLHYAAANCHFHCIETLVTTGA : 169


                        *         500           *         520           *         540
ANH0769   : NVNETDDWGRTALHYAAASDMDRNKTILGNAHDNSEELERARELKEKEATLCLEFLLQND : 540
AL133087  : NVNETDDWGRTALHYAAASDMDRNKTILGNAHDNSEELERARELKEKEATLCLEFLLQND : 229


                        *         560           *         580           *         600
ANH0769   : ANPSIRDKEGYNSIHYAAAYGHRQCLELLLERTNSGFEESDSGATKSPLHLAAYNGHHQA : 600
AL133087  : ANPSIRDKEGYNSIHYAAAYGHRQCLELLLERTNSGFEESDSGATKSPLHLAAYNGHHQA : 289


                        *         620           *         640           *         660
ANH0769   : LEVLLQSLVDLDIRDEKGRTALDLAAFKGHTECVEALINQGASIFVKDNVTKRTPLHASV : 660
AL133087  : LEVLLQSLVDLDIRDEKGRTALDLAAFKGHTECVEALINQGASIFVKDNVTKRTPLHASV : 349


                        *         680           *         700           *         720
ANH0769   : INGHTLCLRLLLEIADNPEAVDVKDAKGQTPLMLAVAYGHIDAVSLLLEKEANVDTVDIL : 720
AL133087  : INGHTLCLRLLLEIADNPEAVDVKDAKGQTPLMLAVAYGHIDAVSLLLEKEANVDTVDIL : 409
```

FIG. 12A

```
              *           740          *           760          *           780
ANH0769  : GCTALHRGIMTGHEECVQMLLEQEVSILCKDSRGRTPLHYAAARGHATWLSELLQMALSE : 780
AL133087 : GCTALHRGIMTGHEECVQMLLEQEVSILCKDSRGRTPLHYAAARGHATWLSELLQMALSE : 469


              *           800          *           820          *           840
ANH0769  : EDCCFKDNQGYTPLHWACYNGNENCIEVLLEQKCFRKFIGNPFTPLHCAIINDHGNCASL : 840
AL133087 : EDCCFKDNQGYTPLHWACYNGNENCIEVLLEQKCFRKFIGNPFTPLHCAIINDHGNCASL : 529


              *           860          *           880          *           900
ANH0769  : LLGAIDSSIVSCRDDKGRTPLHAAAFADHVECLQLLLRHSAPVNAVDNSGKTALMMAAEN : 900
AL133087 : LLGAIDSSIVSCRDDKGRTPLHAAAFADHVECLQLLLRHSAPVNAVDNSGKTALMMAAEN : 589


              *           920          *           940          *           960
ANH0769  : GQAGAVDILVNSAQADLTVKDKDLNTPLHLACSKGHEKCALLILDKIQDESLINEKNNAL : 960
AL133087 : GQAGAVDILVNSAQADLTVKDKDLNTPLHLACSKGHEKCALLILDKIQDESLINEKNNAL : 649


              *           980          *
ANH0769  : QTPLHVAARNGLKVVVEELLAKGACVLAVDENGC : 994
AL133087 : QTPLHVAARNGLKVVVEELLAKGACVLAVDENGC : 683
```

FIG. 12B

```
                    *           20          *           40          *
ANH0658    : MSLKLPRNWDENLKVEAAKIARSRSVMTGEQMAAFHPSSTPNPLERPIKMGWLKKQRS : 58
NM_014882  : MSL-------GQSAQLFLSIARSRSVMTGEQMAAFHPSSTPNPLERPIKMGWLKKQRS : 51

             60          *           80          *           100         *
ANH0658    : IVKNWQQRYFVLRAQQLYYYKDEEDTKPQGCMYLPGCTIKEIATNPEEAGKFVFEIIP : 116
NM_014882  : IVKNWQQRYFVLRAQQLYYYKDEEDTKPQGCMYLPGCTIKEIATNPEEAGKFVFEIIP : 109

             120         *           140         *           160         *
ANH0658    : ASWDQNRMGQDSYVLMASSQAEMEEWVKFLRRVAGTPCGVFGQRLDETVAYEQKFGPH : 174
NM_014882  : ASWDQNRMGQDSYVLMASSQAEMEEWVKFLRRVAGTPCGVFGQRLDETVAYEQKFGPH : 167

             180         *           200         *           220         *
ANH0658    : LVPILVEKCAEFILEHGRNEEGIFRLPGQDNLVKQLRDAFDAGERPSFDRDTDVHTVA : 232
NM_014882  : LVPILVEKCAEFILEHGRNEEGIFRLPGQDNLVKQLRDAFDAGERPSFDRDTDVHTVA : 225

             240         *           260         *           280         *
ANH0658    : SLLKLYLRDLPEPVVPWSQYEGFLLCGQLTNADEAKAQQELMKQLSILPRDNYSLLSY : 290
NM_014882  : SLLKLYLRDLPEPVVPWSQYEGFLLCGQLTNADEAKAQQELMKQLSILPRDNYSLLSY : 283

             300         *           320         *           340
ANH0658    : ICRFLHEIQLNCAVNKMSVDNLATVIGVNLIRSKVEDPAVIMRGTPQIQRVMTMMIRD : 348
NM_014882  : ICRFLHEIQLNCAVNKMSVDNLATVIGVNLIRSKVEDPAVIMRGTPQIQRVMTMMIRD : 341

          *           360         *           380         *           400
ANH0658    : HEVLFPKSKDIPLSPPAQKNDPKKAPVARSSVGWDATEDLRISRTDSFSSMTSDSDTT : 406
NM_014882  : HEVLFPKSKDIPLSPPAQKNDPKKAPVARSSVGWDATEDLRISRTDSFSSMTSDSDTT : 399

          *           420         *           440         *           460
ANH0658    : SPTGQQPSDAFPEDSSKVPREKPGDWKMQSRKRTQTLPNRKCFLTSAFQGANSSKMEI : 464
NM_014882  : SPTGQQPSDAFPEDSSKVPREKPGDWKMQSRKRTQTLPNRKCFLTSAFQGANSSKMEI : 457

          *           480         *           500         *           520
ANH0658    : FKNEFWSPSSEAKAGEGHRRTMSQDLRQLSDSQRTSTYDNVPSLPGSPGEEASALSSQ : 522
NM_014882  : FKNEFWSPSSEAKAGEGHRRTMSQDLRQLSDSQRTSTYDNVPSLPGSPGEEASALSSQ : 515

             *           540         *           560         *           580
ANH0658    : ACDSKGDTLASPNSETGPGKKNSGEEEIDSLQRMVQELRKEIETQKQMYEEQIKNLEK : 580
NM_014882  : ACDSKGDTLASPNSETGPGKKNSGEEEIDSLQRMVQELRKEIETQKQMYEEQIKNLEK : 573

             *           600         *           620         *           6
ANH0658    : ENYDVWAKVVRLNEELEKEKKKSAALEISLRNMERSREDVEKRNKALEEEVKEFVKSM : 638
NM_014882  : ENYDVWAKVVRLNEELEKEKKKSAALEISLRNMERSREDVEKRNKALEEEVKEFVKSM : 631

             40
ANH0658    : KEPKTEA--- : 645
NM_014882  : KEPKTEA--- : 638
```

FIG. 13

```
                    *              20              *              40              *
ANH0668     :  MHQTYSRHCRPEESTFSAAMTTMQGMEQAMPGAGPGVPQLGNMAVIHSHL  :   50
XM_015539   :  MHQTYSRHCRPEESTFSAAMTTMQGMEQAMPGAGPGVPQLGNMAVIHSHL  :   50

                    60              *              80              *             100
ANH0668     :  WKGLQEKFLKGEPKVLGVVQILTALMSLSMGITMMCMASNTYGSNPISVY  :  100
XM_015539   :  WKGLQEKFLKGEPKVLGVVQILTALMSLSMGITMMCMASNTYGSNPISVY  :  100

                    *             120              *             140              *
ANH0668     :  IGYTIWGSVMFIISGSLSIAAGIRTTKGL--------------------------  :  129
XM_015539   :  IGYTIWGSVMFIISGSLSIAAGIRTTKGLVKGSLGMNEISSVLAASCLTEL  :  150

                   160              *             180              *             200
ANH0668     :  --------------------------------GLDGMVLLLSVLEFCIAV  :  147
XM_015539   :  NTTSLAFYSEHHPYCNYYGNSNNCHGTMSLLMGLDGMVLLLSVLEFCIAV  :  200

                    *             220              *
ANH0668     :  SLSAFGCKVLCCTPGGVVLILPSHSHMAETASPTPLNEV  :  186
XM_015539   :  SLSAFGCKVLCCTPGGVVLILPSHSHMAETASPTPLNEV  :  239
```

FIG. 14

```
                         *          20         *          40         *          60
ANH0757    : MPQPSVSGMDPPEGDAERSHTESEQTLMSTDLLANSSDPDFMYELDREMNYQQNPRDNEL :  60
XM_087631  : ----------------------------------------------------------- :   -

                         *          80         *          100        *          120
ANH0757    : SLEDGKDTENLLSETDVFDNEGALTSNWEQWDTYCEDLTKQTKERSGDLWGTKEVDYTGL : 120
XM_087631  : ----------------------------------------------------------- :   -

                         *          140        *          160        *          180
ANH0757    : DDFSSPYQDFLVSSKTPLLAQENSEDSQSVSDSTYATPDSTPSVKQNPLPSSEPGKRLTSF : 180
XM_087631  : ----------------------------------------------------------- :   -

                         *          200        *          220        *          240
ANH0757    : TAAPVCSSKTLQAEVPTSDGVQKASKEPSSTQIMVKTNMYHNEKVNEHVEGKDYAVKKAKV : 240
XM_087631  : ----------------------------------------------------------- :   -

                         *          260        *          280        *          300
ANH0757    : KTNPVQQSRPLTSQLTTDAAKENTCYCGAVAKRQEKKGMEELQGHATPALPTKETQELLI : 300
XM_087631  : ----------------------------------------------------------- :   -

                         *          320        *          340        *          360
ANH0757    : SPLLQEGRGSLAAGESSSLSASTSVSDSSQKKEEHNYSTEVSDNLGEQPTKCSPEEDEED : 360
XM_087631  : ----------------------------------------------------------- :   -

                         *          380        *          400        *          420
ANH0757    : EEDVDDEDHDEGFGSEHELSENEEEEEEEEDYEDDKDDDISDTFSEPGYENDSVEDLKEV : 420
XM_087631  : ----------------------------------------------------------- :   -

                         *          440        *          460        *          480
ANH0757    : TSTSSRKRGKRRGTWEASEQLTPSQQERMLRPSEWNRDTLPSNMYQKNGLHHGKYAVKKS : 480
XM_087631  : ------------------------------MLRPSEWNRDTLPSNMYQKNGLHHGKYAVKKS :  32

                         *          500        *          520        *          540
ANH0757    : RRTDVEDLTPNPKKLLQIGNELRKLNKVISDLTPVSELPLTARPRSRKEKNKWAERACRI : 540
XM_087631  : RRTDVEDLTPNPKKLLQIGNELRKLNKVISDLTPVSELPLTARPRSRKEKNSWLPELVG- :  91

                         *          560        *          580        *          600
ANH0757    : KKKAQYEANKVKTNGTNREYQNELEVTNSTKQELEVNRVQNPRDFRCPNMCQKFEBTLKDT : 600
XM_087631  : ----------------------------------------------------------- :   -

                         *          620        *
ANH0757    : SGFPVAGQLSFESVNQVFEKTALGNPTGGIVGLRTFTSKV : 639
XM_087631  : ---------------------------------------- :   -
```

FIG. 15

```
               *         20          *         40          *         60
ANH0687A   : MSDTRRRVKVYTLNEDRQWDDRGTGHVSSTYVEELKGMSLLVRAESDGSLLLESKINPNT :  60
ANH0687B   : MSDTRRRVKVYTLNEDRQWDDRGTGHVSSTYVEELKGMSLLVRAESDGSLLLESKINPNT :  60
XM_048092  : MSDTRRRVKVYTLNEDRQWDDRGTGHVSSTYVEELKGMSLLVRAESDGSLLLESKINPNT :  60


               *         80          *        100          *        120
ANH0687A   : AYQKQQDTLIVWSEAENYDLALSFQEKAGCDEIWEKICQ--------------------- :  99
ANH0687B   : AYQKQQDTLIVWSEAENYDLALSFQEKAGCDEIWEKICQVQGKDPSVEVTQDLIDESEEE : 120
XM_048092  : AYQKQQDTLIVWSEAENYDLALSFQEKAGCDEIWEKICQVQGKDPSVEVTQDLIDESEEE : 120


               *        140          *        160          *        180
ANH0687A   : ------------------------------------------------------------ :  -
ANH0687B   : RFEEMPETSHLIDLPTGELNKLEEIADLVTSVLSSPIRREKLALADENEGYIKKLLQLFC : 180
XM_048092  : RFEEMPETSHLFDLPTGELNKLEEIADLVTSVLSSPIRREKLALADENEGYIKKLLQLFC : 180


               *        200          *        220          *        240
ANH0687A   : ------------------------------------------------------------ :  -
ANH0687B   : ACENLENTEGLHHLYEIIRGILFLNKATLFEVMFSDECIMDVVGCLEYDPALAQPKRHRE : 240
XM_048092  : ACENLENTEGLHHLYEIIRGILFLNKATLFEVMFSDECIMDVVGCLEYDPALAQPKRHRE : 240


               *        260          *        280          *        300
ANH0687A   : ------------------------------------------------------------ :  -
ANH0687B   : FLTKTAKFKEVIPITDSELRQKIHQTYRVQYIQDIILPTPSVFEENFLSTLTSELFFNKV : 300
XM_048092  : FLTKTAKFKEVIPITDSELRQKIHQTYRVQYIQDIILPTPSVFEENFLSTLTSELFFNKV : 300


               *        320          *        340          *        360
ANH0687A   : -------EDEKFLSEVFAQLTDEATDDDKRRELVNFFKEFCAFSQTLQPQNRDAFFKTLA : 152
ANH0687B   : EIVSMLQEDEKFLSEVFAQLTDEATDDDKRRELVNFFKEFCAFSQTLQPQNRDAFFKTLA : 360
XM_048092  : EIVSMLQEDEKFLSEVFAQLTDEATDDDKRRELVNFFKEFCAFSQTLQPQNRDAFFKTLA : 360


               *        380          *        400          *        420
ANH0687A   : KLGILPALEIVMGMDDLQVRSAATDIFSYLVEFSPSMVREFVMQEAQQSDDDILLINVVI : 212
ANH0687B   : KLGILPALEIVMGMDDLQVRSAATDIFSYLVEFSPSMVREFVMQEAQQSDDDILLINVVI : 420
XM_048092  : KLGILPALEIVMGMDDLQVRSAATDIFSYLVEFSPSMVREFVMQEAQQSDDDILLINVVI : 420


               *        440          *        460          *        480
ANH0687A   : EQMICDTDPELGGAVQLMGLLRTLIDPENMLATTNKTEKSEFLNFFYNHCMHVLTAPLLT : 272
ANH0687B   : EQMICDTDPELGGAVQLMGLLRTLIDPENMLATTNKTEKSEFLNFFYNHCMHVLTAPLLT : 480
XM_048092  : EQMICDTDPELGGAVQLMGLLRTLIDPENMLATTNKTEKSEFLNFFYNHCMHVLTAPLLT : 480


               *        500          *        520          *        540
ANH0687A   : NTSEDKCEKDFELKHYRYSWSEICTPSHSHSHSTPSSSISQDNIVGSNKNNTICPDNYQT : 332
ANH0687B   : NTSEDKCEKD-------------------------------NIVGSNKNNTICPDNYQT : 508
XM_048092  : NTSEDKCEKDFELKHYRYSWSEICTPSHSHSHSTPSSSISQDNIVGSNKNNTICPDNYQT : 540
```

FIG. 16A

```
                       *         560         *         580         *         600
ANH0687A    :  AQLLALILELLTFCVEHHTYHIKNYIMNKDLLRRVLVLMNSKHTFLALCALRFMRRIIGL  : 392
ANH0687B    :  AQLLALILELLTFCVEHHTYHIKNYIMNKDLLRRVLVLMNSKHTFLALCALRFMRRIIGL  : 568
XM_048092   :  AQLLALILELLTFCVEHHTYHIKNYIMNKDLLRRVLVLMNSKHTFLALCALRFMRRIIGL  : 600


                       *         620         *         640         *         660
ANH0687A    :  KDEFYNRYITKGNLFEPVINALLDNGTRYNLLNSAVIELFEFIRVEDIKSLTAHIVENFY  : 452
ANH0687B    :  KDEFYNRYITKGNLFEPVINALLDNGTRYNLLNSAVIELFEFIRVEDIKSLTAHIVENFY  : 628
XM_048092   :  KDEFYNRYITKGNLFEPVINALLDNGTRYNLLNSAVIELFEFIRVEDIKSLTAHIVENFY  : 660


                       *         680         *         700         *         720
ANH0687A    :  KALESIEYVQTFKGLKTKYEQEKDRQNQKLNSVPSILRSNRFRRDAKALEEDEEMWFNED  : 512
ANH0687B    :  KALESIEYVQTFKGLKTKYEQEKDRQNQKLNSVPSILRSNRFRRDAKALEEDEEMWFNED  : 688
XM_048092   :  KALESIEYVQTFKGLKTKYEQEKDRQNQKLNSVPSILRSNRFRRDAKALEEDEEMWFNED  : 720


                       *         740         *         760         *         780
ANH0687A    :  EEEEGKAVVAPVEKPKPEDDFPDNYEKFMETKKAKESEDKENLPKRTSPGGFKFTFSHSA  : 572
ANH0687B    :  EEEEGKAVVAPVEKPKPEDDFPDNYEKFMETKKAKESEDKENLPKRTSPGGFKFTFSHSA  : 748
XM_048092   :  EEEEGKAVVAPVEKPKPEDDFPDNYEKFMETKKAKESEDKENLPKRTSPGGFKFTFSHSA  : 780


                       *         800         *         820         *         840
ANH0687A    :  SAANGTNSKSVVAQIPPATSNGSSSKTTNLPTSVTATKGSLVGLVDYPDDEEEDEEEESS  : 632
ANH0687B    :  SAANGTNSKSVVAQIPPATSNGSSSKTTNLPTSVTATKGSLVGLVDYPDDEEEDEEEESS  : 808
XM_048092   :  SAANGTNSKSVVAQIPPATSNGSSSKTTNLPTSVTATKGSLVGLVDYPDDEEEDEEEESS  : 840


ANH0687A    :  PRKRPRLGS  : 641
ANH0687B    :  PRKRPRLGS  : 817
XM_048092   :  PRKRPRLGS  : 849
```

FIG. 16B

```
                    *           20          *          40          *
ANH0693    : MQREEKQLEASLDALLSQVADLKNSLGSELGKLENEYGRLLWPSVLDSFA : 50
NM_052877  : ------------------------------------------------- : -

                    60          *          80          *          100
ANH0693    : DLSGQLNLFNKVLKHLKLPEERNQVLPLVLSPDRDEDLMRQTEGRVPVF : 100
NM_052877  : -----------------------------------------MSGGQTEGRVPVF : 13

                    *           120         *          140         *
ANH0693    : SHEVVPDHLRTKPDPEVEEQEKQLTTDAARIGADAAQKQIQSLNKMCSNL : 150
NM_052877  : SHEVVPDHLRTKPDPEVEEQEKQLTTDAARIGADAAQKQIQSLNKMCSNL :  63

                    160         *          180         *          200
ANH0693    : LEKISKEERESESGGLRPNKQTFNPTDTNALVAAVAFGKGLSNWRPSGSS : 200
NM_052877  : LEKISKEERESESGGLRPNKQTFNPTDTNALVAAVAFGKGLSNWRPSGSS : 113

                    *           220         *          240         *
ANH0693    : GPGQAGQPGAGTILAGTSGLQQVQMAGAPSQQQPMLSGVQMAQAGQPGKM : 250
NM_052877  : GPGQAGQPGAGTILAGTSGLQQVQMAGAPSQQQPMLSGVQMAQAGQPGKM : 163

                    260         *          280         *          300
ANH0693    : PSGIKTNIKSASMHPYQR------------------------------- : 268
NM_052877  : PSGIKTNIKSASMHPYQRPSCLGELLALPLRRKVKKLLGQEGKKNAHLQL : 213


ANH0693    : -  :    -
NM_052877  : W  : 214
```

FIG. 17

```
                   *        20         *        40         *        60
ANH0122A  :  MSFPPHLNRPPMGIPALPPGIPPPQFPGFPPPVPPGTPMIPVPMSIMAPAPTVLVPTVSM  :   60
ANH0122B  :  MSFPPHLNRPPMGIPALPPGIPPPQFPGFPPPVPPGTPMIPVPMSIMAPAPTVLVPTVSM  :   60
AAF19255  :  ---------------------------------------------------------M  :    1
AAC97961  :  ----------------------------------------------------------  :    -


                   *        80         *        100        *        120
ANH0122A  :  VGKHLGARKDHPGLKAKENDENCGPTTTVEVGNISEKASDMLIPQLLAKCGLVLSWKRVQ  :  120
ANH0122B  :  VGKHLGARKDHPGLKAKENDENCGPTTTVEVGNISEKASDMLIPQLLAKCGLVLSWKRVQ  :  120
AAF19255  :  VGKHLGARKDHPGLKAKENDENCGPTTTVEVGNISEKASDMLIPQLLAKCGLVLSWKRVQ  :   61
AAC97961  :  -----------------------------------------------KCGLVLSWKRVQ  :   12


                   *        140        *        160        *        180
ANH0122A  :  GASGKLQAFGFCEYKEPESTLRALRLLHDLQIGEKKLLVKVDAKTKAQLDEWKAKKKASN  :  180
ANH0122B  :  GASGKLQAFGFCEYKEPESTLRALRLLHDLQIGEKKLLVKVDAKTKAQLDEWKAKKKASN  :  180
AAF19255  :  GASGKLQAFGFCEYKEPESTLRALRLLHDLQIGEKKLLVKVDAKTKAQLDEWKAKKKASN  :  121
AAC97961  :  GASGKLQAFGFCEYKEPESTLRALRLLHDLQIGEKKLLVKVDAKTKAQLDEWKAKKKASN  :   72


                   *        200        *        220        *        240
ANH0122A  :  GNARPETVTNDDEEALDEETKRRDQMIKGAIEVLIREYSSELNAPSQESDSHPRKKKKEK  :  240
ANH0122B  :  GNARPETVTNDDEEALDEETKRRDQMIKGAIEVLIREYSSELNAPSQESDSHPRKKKKEK  :  240
AAF19255  :  GNARPETVTNDDEEALDEETKRRDQMIKGAIEVLIREYSSELNAPSQESDSHPRKKKKEK  :  181
AAC97961  :  GNARPETVTNDDEEALDEETKRRDQMIKGAIEVLIREYSSELNAPSQESDSHPRKKKKEK  :  132


                   *        260        *        280        *        300
ANH0122A  :  KEDIFRRFPVAPLIPYPLITKEDINAIEMEEDKRDLISREISKFRDTHKKLEEEKGKKEK  :  300
ANH0122B  :  KEDIFRRFPVAPLIPYPLITKEDINAIEMEEDKRDLISREISKFRDTHKKLEEEKGKKEK  :  300
AAF19255  :  KEDIFRRFPVAPLIPYPLITKEDINAIEMEEDKRDLISREISKFRDTHKKLEEEKGKKEK  :  241
AAC97961  :  KEDIFRRFPVAPLIPYPLITKEDINAIEMEEDKRDLISREISKFRDTHKKLEEEKGKKEK  :  192


                   *        320        *        340        *        360
ANH0122A  :  ERQEIEKERRERERERERERERERRRERERERERERERERERERERDRDRDRTKERDRD  :  360
ANH0122B  :  ERQEIEKERRERERERERERERRRER-------------------------------  :  327
AAF19255  :  ERQEIEKERRERERERERERERERRRERERERERERERERERERERDRDRDRTKERDRD  :  301
AAC97961  :  ERQEIEKERRERERERERERERERRRERERERERERERERERERERDRDRDRTKERDRL  :  252


                   *        380        *        400        *        420
ANH0122A  :  RDRERDRDRDRERSSDRNKDRSRSREKSRDRERERERERERERERERERERERERERERE  :  420
ANH0122B  :  --------------------------ERERERERERERERERERERERERERERERERE  :  356
AAF19255  :  RDRERDRDRDRERSSDRNKDRSRSREKSRDRERERERERERERERERERERERERERERE  :  361
AAC97961  :  RDRERDRDRDRERSSDRNKDRSRSREKSRDRERERERERERERERERERERERERERERE  :  312


                   *        440        *        460        *        480
ANH0122A  :  REREREKDKKRDREEDEEDAYERRKLERKLREKEAAYQERLKNWEIRERKKTREYEKEAE  :  480
ANH0122B  :  REREREKDKKRDREEDEEDAYERRKLERKLREKEAAYQERLKNWEIRERKKTREYEKEAE  :  416
AAF19255  :  REREREKDKKRDREEDEEDAYERRKLERKLREKEAAYQERLKNWEIRERKKTREYEKEAE  :  421
AAC97961  :  REREREKDKKRDREEDEEDAYERRKLERKLREKEAAYQERLKNWEIRERKKTREYEKEAE  :  372
```

FIG. 18A

```
                    *          500          *          520          *          540
ANH0122A  : REEERRREMAKEAKRLKEFLEDYDDDRDDPKYYRGSALQKRLRDREKEMEADERDRKREK : 540
ANH0122B  : REEERRREMAKEAKRLKEFLEDYDDDRDDPKYYRGSALQKRLRDREKEMEADERDRKREK : 476
AAF19255  : REEERRREMAKEAKRLKEFLEDYDDDRDDPKYYRGSALQKRLRDREKEMEADERDRKREK : 481
AAC97961  : REEERRREMAKEAKRLKEFLEDYDDDRDDPKYYRGSALQKRLRDREKEMEADERDRKREK : 432


                    *          560          *          580          *          600
ANH0122A  : EELEEIRQRLLAEGHPDPDAELQRMEQEAERRRQPQIKQEPESEEEEEEKQEKEEKREEP : 600
ANH0122B  : EELEEIRQRLLAEGHPDPDAELQRMEQEAERRRQPQIKQEPESEEEEEEKQEKEEKREEP : 536
AAF19255  : EELEEIRQRLLAEGHPDPDAELQRMEQEAERRRQPQIKQEPESEEEEEEKQEKEEKREEP : 541
AAC97961  : EELEEIRQRLLAEGHPDPDAELQRMEQEAERRRQPQIKQEPESEEEEEEKQEKEEKREEP : 492


                    *          620          *          640          *          660
ANH0122A  : MEEEEEPEQKPCLKPTLRPISSAPSVSSASGNATPNTPGDESPCGIIIPHENSPDQQQPE : 660
ANH0122B  : MEEEEEPEQKPCLKPTLRPISSAPSVSSASGNATPNTPGDESPCGIIIPHENSPDQQQPE : 596
AAF19255  : MEEEEEPEQKPCLKPTLRPISSAPSVSSASGNATPNTPGDESPCGIIIPHENSPDQQQPE : 601
AAC97961  : MEEEEEPEQKPCLKPTLRPISSAPSVSSASGNATPNTPGDESPCGIIIPHENSPDQQQPE : 552


                    *          680          *          700          *          720
ANH0122A  : EHRPKIGLSLKLGASNSPGQPNSVKRKKLPVDSVFNKFEDEDSDDVPRKRKLVPLDYGED : 720
ANH0122B  : EHRPKIGLSLKLGASNSPGQPNSVKRKKLPVDSVFNKFEDEDSDDVPRKRKLVPLDYGED : 656
AAF19255  : EHRPKIGLSLKLGASNSPGQPNSVKRKKLPVDSVFNKFEDEDSDDVPRKRKLVPLDYGED : 661
AAC97961  : EHRPKIGLSLKLGASNSPGQPNSVKRKKLPVDSVFNKFEDEDSDDVPRKRKLVPLDYGED : 612


                    *          740          *          760          *          780
ANH0122A  : DKNATKGTVNTEEKRKHIKSLIEKIPTAKPELFAYPLDWSIVDSILMERRIRPWINKKII : 780
ANH0122B  : DKNATKGTVNTEEKRKHIKSLIEKIPTAKPELFAYPLDWSIVDSILMERRIRPWINKKII : 716
AAF19255  : DKNATKGTVNTEEKRKHIKSLIEKIPTAKPELFAYPLDWSIVDSILMERRIRPWINKKII : 721
AAC97961  : DKNATKGTVNTEEKRKHIKSLIEKIPTAKPELFAYPLDWSIVDSILMERRIRPWINKKII : 672


                    *          800          *          820          *          840
ANH0122A  : EYIGEEEATLVDFVCSKVMAHSSPQSILDDVAMVLDEEAEVFIVKMWRLLIYETEAKKIG : 840
ANH0122B  : EYIGEEEATLVDFVCSKVMAHSSPQSILDDVAMVLDEEAEVFIVKMWRLLIYETEAKKIG : 776
AAF19255  : EYIGEEEATLVDFVCSKVMAHSSPQSILDDVAMVLDEEAEVFIVKMWRLLIYETEAKKIG : 781
AAC97961  : EYIGEEEATLVDFVCSKVMAHSSPQSILDDVAMVLDEEAEVFIVKMWRLLIYETEAKKIG : 732


ANH0122A  : LVK : 843
ANH0122B  : LVK : 779
AAF19255  : LVK : 784
AAC97961  : LVK : 735
```

FIG. 18B

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              *         20          *         40          *         60
ANH0316  : MAWKTLPIYLLLLLSVFVIQQVSSQ------------------------------------- :  25
XM_001738 : MAWKTLPIYLLLLLSVFVIQQVSSQDLSSCAGRCGECYSRDATCNCDYNCQHYMECCPDF :  60

              *         80          *        100          *        120
ANH0316  : ------ELSCKGRCFESFERGRECDCDAQCKKYDKCCPDYESFCAEVHNPTSPPSSKKAP :  79
XM_001738 : KRVCTAELSCKGRCFESFERGRECDCDAQCKKYDKCCPDYESFCAEVHNPTSPPSSKKAP : 120

              *        140          *        160          *        180
ANH0316  : PPSGASQTIKSTTKRSPKPPNKKKTKKVIESEEITE----------------------- : 115
XM_001738 : PPSGASQTIKSTTKRSPKPPNKKKTKKVIESEEITEELSVSENQLSSISCSSSSSSSTLR : 180

              *        200          *        220          *        240
ANH0316  : -------------------VKDNKKNRTKKKPTPKPPVVDEAGSGLDNGDFKVTTPDTST : 156
XM_001738 : EIKSSKNSAANRELQKKLKVKDNKKNRTKKKPTPKPPVVDEAGSGLDNGDFKVTTPDTST : 240

              *        260          *        280          *        300
ANH0316  : TQHNKVSTSPKITTAKPINRPSLPPNSDTSKETSLTVNKETTVETKETTTTNKQTSTDG : 216
XM_001738 : TQHNKVSTSPKITTAKPINRPSLPPNSDTSKETSLTVNKETTVETKETTTTNKQTSTDG : 300

              *        320          *        340          *        360
ANH0316  : KEKTTSAKETQSIEKTSAKDLAPTSKVLAKPTPKAETTTKGPALTTPKEPTPTTPKEPAS : 276
XM_001738 : KEKTTSAKETQSIEKTSAKDLAPTSKVLAKPTPKAETTTKGPALTTPKEPTPTTPKEPAS : 360

              *        380          *        400          *        420
ANH0316  : TTPKEPTPTTIKSAPTTPKEPAPTTTKSAPTTPKEPAPTTTKEPAPTTPKEPAPTTTKEP : 336
XM_001738 : TTPKEPTPTTIKSAPTTPKEPAPTTTKSAPTTPKEPAPTTTKEPAPTTPKEPAPTTTKEP : 420

              *        440          *        460          *        480
ANH0316  : APTTTKSAPTTPKEPAPTTPKKPAPTTPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPK : 396
XM_001738 : APTTTKSAPTTPKEPAPTTPKKPAPTTPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPK : 480

              *        500          *        520          *        540
ANH0316  : EPAPTAPKKPAPTTPKEPAPTTPKEPAPTTTKEPSPTTPKEPAPTTTKSAPTTTKEPAPT : 456
XM_001738 : EPAPTAPKKPAPTTPKEPAPTTPKEPAPTTTKEPSPTTPKEPAPTTTKSAPTTTKEPAPT : 540

              *        560          *        580          *        600
ANH0316  : TTKSAPTTPKEPSPTTTKEPAPTTPKEPAPTTPKKPAPTTPKEPAPTTPKEPAPTTTKKE : 516
XM_001738 : TTKSAPTTPKEPSPTTTKEPAPTTPKEPAPTTPKKPAPTTPKEPAPTTPKEPAPTTTKKP : 600

              *        620          *        640          *        660
ANH0316  : APTTPKEPAPTTPKETAPTTPKKLTPTTPEKLAPTTPEKPAPTTPEELAPTTPEEPTPTT : 576
XM_001738 : APTTPKEPAPTTPKETAPTTPKKLTPTTPEKLAPTTPEKPAPTTPEELAPTTPEEPTPTT : 660

              *        680          *        700          *        720
ANH0316  : PEEPAPTTPKAAAPNTPKEPAPTTPKEPAPTTPKEPAPTTPKETAPTTPKGTAPTTLKEP : 636
XM_001738 : PEEPAPTTPKAAAPNTPKEPAPTTPKEPAPTTPKEPAPTTPKETAPTTPKGTAPTTLKEP : 720
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FIG. 19A

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            *         740         *         760         *         780
ANHO316  : APTTPKKPAPKELAPTTTKEPTSTTCDKPAPTTPKGTAPTTPKEPAPTTPKEPAPTTPKG :  696
XM_001738: APTTPKKPAPKELAPTTTKEPTSTTCDKPAPTTPKGTAPTTPKEPAPTTPKEPAPTTPKG :  780

            *         800         *         820         *         840
ANHO316  : TAPTTLKEPAPTTPKKPAPKELAPTTTKGPTSTTSDKPAPTTPKETAPTTPKEPAPTTPK :  756
XM_001738: TAPTTLKEPAPTTPKKPAPKELAPTTTKGPTSTTSDKPAPTTPKETAPTTPKEPAPTTPK :  840

            *         860         *         880         *         900
ANHO316  : KPAPTTPETPPPTTSEVSTPTTTKEPTTIHKSPDESTPELSAEPTPKALENSPKEPGVPT :  816
XM_001738: KPAPTTPETPPPTTSEVSTPTTTKEPTTIHKSPDESTPELSAEPTPKALENSPKEPGVPT :  900

            *         920         *         940         *         960
ANHO316  : TKTPAATKPEMTTTAKDKTTERDLRTTPETTTAAPKMTKETATTTEKTTESKITATTTQV :  876
XM_001738: TKTPAATKPEMTTTAKDKTTERDLRTTPETTTAAPKMTKETATTTEKTTESKITATTTQV :  960

            *         980         *        1000         *        1020
ANHO316  : TSTTTQDTTPFKITTLKTTTLAPKVTTTKKTITTTEIMNKPEETAKPKDRATNSKATTPK :  936
XM_001738: TSTTTQDTTPFKITTLKTTTLAPKVTTTKKTITTTEIMNKPEETAKPKDRATNSKATTPK : 1020

            *        1040         *        1060         *        1080
ANHO316  : PQKPTKAPKKPTSTKKPKTMPRVRKPKTTPTPRKMTSTMPELNPTSRIAEAMLQTTTRPN :  996
XM_001738: PQKPTKAPKKPTSTKKPKTMPRVRKPKTTPTPRKMTSTMPELNPTSRIAEAMLQTTTRPN : 1080

            *        1100         *        1120         *        1140
ANHO316  : QTPNSKLVEVNPKSEDAGGAEGETPHMLLRPHVFMPEVTPDMDYLPRVPNQGIIINPMLS : 1056
XM_001738: QTPNSKLVEVNPKSEDAGGAEGETPHMLLRPHVFMPEVTPDMDYLPRVPNQGIIINPMLS : 1140

            *        1160         *        1180         *        1200
ANHO316  : DETNICNGKPVDGLTTLRNGTLVAFRGHYFWMLSPFSPPSPARRITEVWGIPSPIDTVFT : 1116
XM_001738: DETNICNGKPVDGLTTLRNGTLVAFRGHYFWMLSPFSPPSPARRITEVWGIPSPIDTVFT : 1200

            *        1220         *        1240         *        1260
ANHO316  : RCNCEGKTFFFKDSQYWRFTNDIKDAGYPKPIFKGFGGLTGQIVAALSTAKYKNWPESVY : 1176
XM_001738: RCNCEGKTFFFKDSQYWRFTNDIKDAGYPKPIFKGFGGLTGQIVAALSTAKYKNWPESVY : 1260

            *        1280         *        1300         *        1320
ANHO316  : FFKRGGSIQQYIYKQEPVQKCPGRRPALNYPVYGETTQVRRRRFERAIGPSQTHTIRIQY : 1236
XM_001738: FFKRGGSIQQYIYKQEPVQKCPGRRPALNYPVYGETTQVRRRRFERAIGPSQTHTIRIQY : 1320

            *        1340         *        1360         *        1380
ANHO316  : SPARLAYQDKGVLHNEVKVSILWRGLPNVVTSAISLPNIRKPDGYDYYAFSKDQYYNIDV : 1296
XM_001738: SPARLAYQDKGVLHNEVKVSILWRGLPNVVTSAISLPNIRKPDGYDYYAFSKDQYYNIDV : 1380

            *        1400
ANHO316  : PSRTARAITTRSGQTLSKVWYNCP : 1320
XM_001738: PSRTARAITTRSGQTLSKVWYNCP : 1404
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FIG. 19B